SUMMARY OF CHANGES

Project Number 9140-1141

<u>Document Number</u> Proposed Revision A to CID A-A-52557; Fuel, Diesel; for posts, camps, and Stations

1. Major changes.

- a. Change in the wording requirement in section 3.1. The new wording specifies that the diesel fuel shall be hydrocarbon oils rather than petroleum hydrocarbon fractions.
- b. Change in the requirement of the additives in sections 3.3, 3.4, and 3.5. In A-A-52557, the use of these three additives is mandatory (...shall be blended). In this revision, the addition of these additives is required only when specified in the ordering data. NOTE: The inclusion of military specifications in these requirements is of questionable validity for this CID.
- c. Elimination of the last sentence in section 3.4. This was a guidance for fuels lacking in lubricity.
- d. Change in the wording in section 3.6.1 (physical and chemical requirements). When A-A-52557 was originally written in 1996, the maximum cloud point requirement was 10th degree percentile minimum (same as ASTM D 975 and VV-F-800). In the last four years the requirement in ASTM D 975 has been changed to an agreement between the supplier and the user. Thus, the maximum cloud point requirement has been fixed exclusively to the 10th percentile minimum temperature).
- e. Change in the particulates test required in section 3.6.2. The test was changed from ASTM D 5452 to ASTM D 6217.
- f. Change of paragraph 5.1 from <u>Contractor certification</u> to <u>Product conformance</u>, to conform to Chapter 4, Part 2, paragraph 17a of the Federal Standardization Manual.
- g. Remove first sentence of paragraph 6 (Packaging) to conform to Chapter 4, Part 2, paragraph 18 of the Federal Standardization Manual.
- h. Separate paragraph 7.1.1 into 7.1.1 and 7.1.2 for different addresses for document sources.
- j. Add paragraph 7.1.3 for ASTM address.
- k. Add item g to paragraph 7.2 (Ordering data) for fuel additives.
- 1. Add paragraph 7.3 (Material Safety Data Sheets).
- m. Add paragraph 7.5 (Key words).
- n. Remove activity codes FCAE and 9FTE-10 (invalid) from Civil Agency Coordination Activity GSA/FSS and replace with 6FET.
- p. Remove FEC (HHS) from Civil Agency Coordination Activities. FEC (Office of Facilities Engineering) no longer exists with HHS (Department of Health and Human Services).

NOTE: This draft, dated 19 June 2000, prepared by the U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-D/210, Warren, MI 48397-5000 has not been approved and is subject to modification. DO NOT USE FOR ACQUISITION PURPOSES.

COORDINATION

DRAFT

NOT MEASUREMENT SENSITIVE

A-A-52557A PROPOSED SUPERSEDING A-A-52557 January 2, 1996

COMMERCIAL ITEM DESCRIPTION

FUEL OIL, DIESEL; FOR POSTS, CAMPS AND STATIONS

The General Services Administration has authorized the use of this commercial item description (CID), for all federal agencies.

- 1. SCOPE. This CID covers requirements for two grades of low sulfur diesel fuel oils suitable for use in ground compression-ignition and gas turbine engines and other diesel fuel consuming equipment. The two grades of fuel are not suitable for aircraft engines.
- 2. CLASSIFICATIONS. The diesel fuel oil shall be of two grade designations as follows:
- 2.1 Grade.
- 2.1.1 <u>Grade Low Sulfur No. 1-D</u>. A special-purpose, light distillate fuel used for automotive diesel and gas turbine engines requiring low sulfur fuel and requiring a higher volatility than that provided by Grade Low Sulfur No. 2-D.
- 2.1.2 <u>Grade Low Sulfur No. 2-D</u>. A general purpose, middle distillate fuel used for automotive diesel and gas turbine engines requiring low sulfur fuel. It is also suitable for use in non-automotive application, especially in conditions of variable speed and load.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-D/210, Warren, MI 48397-5000.

AMSC N/A FSC 9140

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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3. SALIENT CHARACTERISTICS.

- 3.1 <u>Material</u>. The grades of diesel fuel oils herein specified shall be hydrocarbon oils conforming to the detailed requirements of ASTM D975 except as noted below.
- 3.2 <u>Legal requirements</u>. Fuel furnished under this description must meet all applicable legal requirements in accordance with the Code of Federal Regulations.
- 3.3 <u>Fuel stabilizer additive</u>. When specified (see 7.2), a fuel stabilizer additive/biocide conforming to MIL-S-53021 shall be blended into the fuel to improve the suitability of fuels for long term storage (more than six months) and for use in pre-positioned or standby equipment by preventing fuel deterioration and microbiological growth. Fuel stored under warm or tropical conditions is especially susceptible to degradation. The additive is not intended for routine use, but only when the conditions favorable to fuel degradation are expected to be encountered. Additive concentrations are given in the latest revision of QPL-53021.
- 3.4 <u>Corrosion inhibitor/lubricity improver</u>. When specified (see 7.2), a corrosion inhibitor/lubricity improver conforming to MIL-PRF-25017 shall be blended into the fuel to inhibit corrosion. Additive concentration limits are given in the latest revision of QPL-25017.
- 3.5 <u>Fuel system icing inhibitor</u>. When specified (see 7.2), a fuel system icing inhibitor conforming to MIL-DTL-85470 shall be blended into the fuel to purge small quantities of water from the fuel system and to prevent the formation of ice crystals. The additive concentration shall not exceed 0.15 volume percent when tested in accordance with FED-STD-791, methods 5327, 5330, 5340, or 5342.
- 3.6 Performance requirements.
- 3.6.1 <u>Physical and chemical requirements</u>. The maximum cloud point (see 7.2) shall be equal to or lower than the tenth percentile minimum ambient temperature for the area in which ambient temperatures for U.S. locations are shown in Appendix X4 of ASTM D975 (10th Percentile Minimum Ambient Air Temperatures for the United States (Except Hawaii)).
- 3.6.2 <u>Particulates</u>. Total particulate level as measured in accordance with ASTM D6217 shall not exceed 10 milligrams/liter (mg/L).
- 4. REGULATORY REQUIREMENTS.
- 4.1 <u>Clean Air Act requirements</u>. Under authority of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) issues limits on the maximum sulfur level, the maximum aromatic content or minimum cetane index on diesel intended for on-road use. Details of the EPA regulations and test methods are given in Part 80 of Title 40 of the Code of Federal Regulations

- (40 CFR 80). Some states, notably California, have more restrictive aromatic content limits. Specifics may be obtained by contacting the Air Quality Office of the state environmental office or headquarters.
- 4.2 <u>Dye</u>. The Internal Revenue Service (IRS) requires that a red dye, identified as Solvent Red 164 (alkyl derivatives of azo benzene azo naphthol), must be added to all non-taxable diesel fuel as a means of identification. The minimum concentration is provided in 40 CFR 80.
- 5. PRODUCT CONFORMANCE. The diesel fuel oil provided shall meet the salient characteristics of this CID, conform to the producer's own specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.
- 6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract order (see 7.2).

7. NOTES.

(This section contains information of a general or explanatory nature that may be helpful but is not mandatory.)

7.1 Source of documents.

- 7.1.1 The Code of Federal Regulations (CFR) may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.
- 7.1.2 Copies of FED-STD-791, MIL-PRF-25017, MIL-S-53021, QPL-25017, QPL-53021, and MIL-DTL-85470 are available from the Defense Printing Service Detachment Office, Standardization Document Order Desk, 700 Robbins Avenue, Bldg. 4D (Customer Service), Philadelphia, PA 19111-5094.
- 7.1.3 ASTM Standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.
- 7.2 Ordering data. The contract or order should specify the following:
 - a. CID document number and revision.
 - b. Product conformance provisions.
 - c. Grade of diesel fuel oil required.
 - d. Cloud point required.
 - e. Quantity of diesel fuel oil in terms of gallons or barrels bulk or number and size of containers for packaged lots.

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- f. Selection of applicable level and packaging requirements.
- g. If fuel stabilizer, corrosion inhibitor/lubricity improver, icing inhibitor, or any combination thereof is required.
- 7.3 <u>Material Safety Data Sheets (MSDS)</u>. Contracting officers will identify those activities requiring copies of MSDS's prepared in accordance with FED-STD-313. The pertinent Government mailing addresses for submission of data are listed in FED-STD-313; and 29 CFR 1910.1200 requires that the MSDS for each hazardous chemical used in an operation must be readily available to personnel using the material. Contracting officers will identify the activities requiring copies of the MSDS.
- 7.4 <u>Cross-referenced data</u>. Diesel fuel oils conforming to this CID are interchangeable/substitutable with diesel fuel oils conforming to VV-F-800.
- 7.5 Key words.

Automotive

Distillate

Gas

Sulfur

Turbine

MILITARY INTERESTS: CIVIL AGENCY COORDINATION ACTIVITIES:

Custodians: GSA/FSS - 6FET
HHS – NIH

Army – AT DOT – NHT

Navy – SH

Air Force – 68 Preparing Activity:

Army - AT

Review Activities:

Army - AR, MI

Navy – EC, MC, SA (Project 9140-1141)

Air Force -03, 11

DLA - PS